

# **L-Glutamine Powder**

Supports Healthy Digestive, Immune, and Muscular System Function\*

NutriDyn's L-Glutamine Powder is an all-natural supplement providing pure L-glutamine, a key amino acid in the human body. L-glutamine is a conditionally essential amino acid, meaning the body's demand for it increases during instances of stress or prolonged physical activity. L-glutamine plays a variety of roles in the human body and is particularly important for keeping the immune system and gastrointestinal (GI) tract healthy.

## **How L-Glutamine Works**

Amino acids are the building blocks of protein. Amino acids are essential for repairing tissue, especially in the muscles, bones, skin, and hair. They also play a part in the function of organs, glands, tendons, and arteries.

L-glutamine is the most abundant amino acid in human muscle and blood plasma, supporting cellular integrity throughout the body and brain. L-glutamine is a necessary precursor of two key neurotransmitters in the body, gamma-aminobutyric acid (also referred to simply as GABA) and glutamate. Thus, low availability of L-glutamine in the body can disrupt proper production of these neurotransmitters.

Research suggests that vigorous exercise can deplete L-glutamine levels in the blood significantly for up to six hours after the fact, making it wise for athletes and active individuals to supplement.<sup>1</sup> L-glutamine is also necessary for proper protein and glycogen synthesis, both of which are imperative for active individuals.

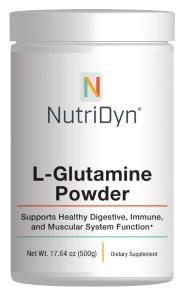
Moreover, depleted L-glutamine levels induced by intense exercise (or stress) can suppress the immune system.<sup>2</sup> When the immune system is suppressed, the body handles stress poorly, whether it's physical or emotional.

It's also been shown that L-glutamine is a crucial amino acid for supporting a healthy GI tract, particularly by maintaining the integrity of the intestinal wall.<sup>3</sup>

## L-Glutamine Supplementation

Given the importance of adequate amounts of L-glutamine in the diet, individuals stand to benefit from L-Glutamine Powder in a variety of ways. Below are some of the most pertinent research-backed benefits derived from L-glutamine:

- Supports immune health
- Supports digestion and GI tract function
- Supports proper neurotransmitter production
- Helps maintain protein and glycogen synthesis in the body



Form: Powder

Serving Size: 1 scoop (100 servings/container)

| Ingredients | Amount | %DV |
|-------------|--------|-----|
| L-Glutamine | 5 g    | *   |

### Ingredients:

L-Glutamine.

#### **Directions:**

Adults mix one scoop (5 g) with water before each meal as a dietary supplement, or as directed by your healthcare practitioner.

Caution: If you are pregnant, nursing, or taking medication, consult your healthcare practitioner before use. Keep out of reach of children.







GLUTEN-FREE DAIRY-FREE

VEGETARIAN





NON-GMO

PRODUCED IN A cGMP FACILITY

 These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.



#### References:

- 1. Keast, D., Arstein, D., Harper, W., Fry, R. W., & Morton, A. R. (1995). Depression of plasma glutamine concentration after exercise stress and its possible influence on the immune system. *The Medical journal of Australia, 162*(1), 15-18.
- 2. Calder, P. C., & Yaqoob, P. (1999). Glutamine and the immune system. Amino acids, 17(3), 227-241.
- 3. Elia, M., & Lunn, P. G. (1997). The use of glutamine in the treatment of gastrointestinal disorders in man. *Nutrition*, 13(7), 743-747.